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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/697,110 | 10/26/2000 | Makoto Ishii | 7217/62910 | 3916 |

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| EXAMINER |
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ARANI, TAGHI T

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| ART UNIT | PAPER NUMBER |
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2131

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,110

Applicant(s)

ISHII, MAKOTO

Examiner

Taghi T. Arani

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-13,15,16 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-13,15,16 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 3 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 3-4, 7-13, 15-16, and 19-24 have been examined and are pending.

Claims 2, 5-6, 14, and 17-18 are cancelled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/06/2005 has been entered.

Response to Amendment

3. Applicant's arguments with respect to the rejections of claims 1-24 have been fully considered but are moot in view of the new ground(s) of rejection presented in this Office action.

Claim Objections

Claims 3 and 15 are objected to under 37 CFR 1.75(c), as being of improper dependent form. Claims 3 and 15 depend on now cancelled claims 2 and 14 respectively. The Examiner assumes that claim 3 depends on 1 and claim 15 depends on 13.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill

Art Unit: 2131

in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 10-13, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record, U.S. Patent No. 5,574,785 to Ueno et al. in view of U.S. Patent No. 5,959,978 to Horikoshi et al, and further in view of Yu et al., U.S. Patent 6,850,910 field Oct. 22, 1999.

Referring to claim 1, Ueno et al. teach a data receiving method, comprising the steps of:

- extracting required data from among received digital signal data to form extracted data [figure 2 and associated text, SEPARATING SECTION 210];
- decoding the extracted required data using a predetermined decoding key to form decoded data [figure 2, CIPHER KEY DETERMINING SECTION 215];
- determining whether the decoded data meets a predetermined standard [figure 2, ERROR DETECTING SECTION 214 and column 5, lines 44-47] including a matching of a decoding diagnostic code added to the required data during transmission and encrypted using the predetermined decoding key with a predetermined constant [col. 8, lines 20-58]; and

Ueno et al. do not teach, however, Horikoshi et al teach deleting the decoded data when it is determined that the decoded data does not meet the predetermined standard, wherein the decoded data is supplied to the computer (see Abstract).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Horikoshi et al's teaching of a communication system to the method of Ueno et al., such that Ueno et al.'s system would delete data if the correct cipher key is not

Art Unit: 2131

used. One would have been motivated to modify Ueno et al.'s method as such in order to prevent meaningless data from occupying a portion of the memory space [Abstract, Horikoshi et al.].

Ueno et al. do not teach but Yu et al. teach wherein the received digital signal data includes a program for execution by a computer [abstract, i.e. active hidden data (program for execution by a computer), where the active hidden data includes a plurality of executable machine instructions embedded into the host data stream], wherein the decoded data is supplied to the computer [Yu et al., column 2, lines 26-37, see also col. 3, lines 16-25].

It would have been further obvious to one of ordinary skill in the art to apply the teaching of Yu et al. to the method of Ueno et al. such that Ueno et al. would include a program for execution by a computer and the decoded data is supplied to the computer with a motivation to provide a method and system that can improve renewability, controllability, and interoperability, and higher level of security [Yu et al., column. 1, lines 36-43].

Referring to claim 13, Ueno et al. teach a data receiving unit, comprising:

receiving means for receiving signals [figure 2, RECEIVER 200];

data extracting means for extracting required data from among said digital signal data obtained by said converting means to form extracted data [figure 2, SEPARATING SECTION 210];

decoding-key-setting means for setting a decoding key required for decoding the extracted data [figure 2, CIPHER KEY DETERMINING SECTION 215],

decoding means for decoding the extracted data by using the decoding key set by said decoding-key- setting means to form decoded data [figure 2, DATA DECIPHERING SECTION 213]; and

Art Unit: 2131

examination means for examining the decoded data decoded by said decoding means based on a predetermined standard [figure 2, ERROR DETECTING SECTION 214 and column 5, lines 44-47] including a matching of decoding diagnostic code added to the required data during transmission and encrypted using the predetermined decoding key with a predetermined constant [col.8, lines 20-58].

Ueno et al. do not explicitly teach a data receiving unit, comprising: converting means for converting signals received by said receiving means into digital signal data;

However, Examiner takes Official Notice that converting means for converting signals received by said receiving means into digital signal data is conventional and well known.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to employ an analog-to-digital converter in the receiver of Ueno et al. since Examiner takes Official Notice that converting means for converting signals received by said receiving means into digital signal data is conventional and well known.

Ueno et al. do not teach, However, Horikoshi et al. disclose a data-receiving unit, comprising:

deletion means for deleting data determined by said examination means as have not been decoded to meet the predetermined standard [Abstract].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Horikoshi et al's teaching of a communication system to the system of Ueno et al., such that Ueno et al.'s system would delete data if the correct cipher key is not used. One would have been motivated to modify Ueno et al.'s system as such in order to provide prevent meaningless data from occupying a portion of the memory space [Abstract, Horikoshi et al.].

Ueno et al. do not teach but Yu et al. teach wherein the received digital signal data includes a program for execution by a computer [Abstract, i.e. active hidden data (program for execution by a computer), where the active hidden data includes a plurality of executable machine instructions embedded into the host data stream], wherein the decoded data is supplied to the computer [Yu et al., column 2, lines 26-37, see also col. 3, lines 16-25].

It would have been further obvious to one of ordinary skill in the art to apply the teaching of Yu et al. to the system of Ueno et al. such that Ueno et al. would include a program for execution by a computer and the decoded data is supplied to the computer with a motivation to provide a system that can improve renewability, controllability, and interoperability, and higher level of security [Yu et al., column. 1, lines 36-43].

Referring to claims 10 and 22, Ueno et al. as modified teach the data receiving method/unit according to claims 1 and 13 respectfully, wherein when said predetermined decoding key does not exist upon decoding a packet of the extracted data, the packet is deleted [Abstract, Horikoshi et al.].

The Examiner supplies the same rational as in claims 1 and 13 above to employ the teaching of Horikoshi et al. within the method of Ueno et al.

Referring to claims 11 and 23, Ueno et al. teach the data receiving method/unit according to Claims 1 and 13 respectfully, wherein a key identical to a key used at a transmitting side for transmitting said signals received at said receiving means is used as the decoding key set by said decoding- key- setting means [column 5, lines 39-44].

Referring to claims 12 and 24, Ueno et al. teach the data receiving method/unit according to Claims 1 and 13 respectfully, further comprising output means for outputting only

Art Unit: 2131

data treated by said examination means as have been decoded to meet the predetermined standard [column 12, lines 63-65].

5. Claims 3-4, 7, 15-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Horikoshi et al. and Yu et al as applied to claims 1 and 13 above, in further view of Kim et al. (prior art of record).

Referring to claims 3 and 15, Ueno et al. as modified teach all limitation of claims 3 and 15 except wherein said decoding means decodes each packet of the extracted data in real time.

However, Kim et al. disclose the data receiving method/unit wherein said decoding means decodes each packet of the extracted data in real time [Abstract].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Kim et al.'s teaching of real time decoding to the system and method of Ueno et al. as modified such that modified Ueno et al.'s decoder (data deciphering section 213 of figure 2) would be a real time decoder. One would have been motivated to modify the modified Ueno et al.'s system as such in order to expedite the decoding process.

Referring to claims 4 and 16, Ueno et al. as modified teach the data receiving method/unit according to Claims 3 and 15 respectively, wherein the step of determining includes determining whether decoding has been performed meeting the predetermined standard in real time for each packet of the extracted data [Ueno et al., column 12, lines 41-45 and Kim et al., Abstract].

Referring to claims 7 and 19, Ueno et al. as modified teach the data receiving method/unit according to Claims 4 and 16 respectively, wherein in the step of deleting, data

Art Unit: 2131

which has not been decoded to meet the predetermined standard in real time is deleted in real time [Abstract, Horikoshi et al.].

6. **Claims 8-9 and 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Horikoshi et al and Yu et al as applied to claims 1 and 13 above, in further view of Trostle (prior art of record).

Referring to claims 8 and 20, Ueno et al. as modified teach all limitation of claims 8 and 20 except wherein when said decoding means determines that address data included in the converted data from said converting means is directed to said data receiving unit, said decoding means performs decoding.

However, Trostle discloses the data receiving method/unit wherein when said decoding means determines that address data included in the converted data from said converting means is directed to said data receiving unit, said decoding means performs decoding [column 6, lines 6-10].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to Trostle's teaching to the system and method of Ueno et al. as modified such that Ueno et al.'s system would transmit and receive an address packet identifying the data receiving unit. One would have been motivated to modify Ueno et al.'s system as such in order transmit the requested data to the proper user location.

Referring to claims 9 and 21, Ueno et al. as modified teach the data receiving method/unit according to Claims 1 and 13 respectfully, wherein said decoding-key-setting means sets the decoding key based on an external input [column 6, lines 2-4 of Trostle].

Conclusion

7. Prior arts made of record, not relied upon:

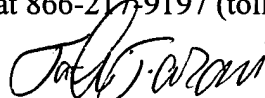
U.S. Patent No. 6,493,824 to Novoa et al. is directed to a secure system and method for remotely waking a computer from a power down state. In one embodiment, a network interface card receives incoming data packets via a network connector. A control module is coupled to the network connector and is configured to search the incoming packets for a wake-up pattern. The control module also verifies that the packet's destination address matches the destination address of the network interface card. If the destination addresses match and a wake-up pattern is found, the control module decrypts an encrypted value from the incoming packet and compares the result to an expected value. A successful comparison causes the control module to assert a signal to wake up the host computer. Preferably, a standard public/private key pair encryption scheme is used, and the source of the data packet encrypts the expected value with a private key. All computers which may receive wake-up packets are provided with a public key with which to decrypt values contained in a security field of any wake-up packets. A successful decryption serves to certify that the wake-up packet was transmitted from an authorized source. For added security, the expected value and public/private keys may be changed on a regular basis, or even every time a valid wake-up packet is received. The new value may be provided in the wake-up packet, to be stored by the network card for the next use.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taghi T. Arani whose telephone number is (571) 272-3787. The examiner can normally be reached on 8:00-5:30 Mon-Fri.

Art Unit: 2131

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Taghi T. Arani, Ph.D.
Examiner
Art Unit 2131

8/7/05